

ABSTRACT OF THE DISCLOSURE

The present invention discloses methods for manufacturing MTJ cell of MRAM wherein two annealing process
5 with different magnitudes of applied magnetic fields are performed. In accordance with the method, the formation process of second pinned magnetic layer comprises a first annealing process and a second annealing process, wherein a magnitude of a magnetic field applied during the first
10 annealing process being larger than that of a magnetic field applied during the second annealing process.